



## FRONT-END DEVELOPER – TAKE HOME TEST SPECIFICATIONS

### PURPOSE/RESPONSIBILITIES

A visualization tool for browsing available data streams and their descriptions as well as graphically viewing the time-series data of these streams in appropriate visualizations for the type of data. The interface should allow the user to move through different time periods of visualization in an intuitive way. NOTE: this exercise should take between 1-3 hours; please do not spend more than 5 hours on this task.

### EVALUATION

We are looking for concise and readable code that meets the component specifications. We value a modular design with well-defined interfaces. Where the component specifications are ambiguous or lacking, we are looking to see you make a decision that allows you to move forward without compromising the basic functionality of the application.

### ASSUMPTIONS/CONSTRAINTS

- Written in Typescript, using either Angular, React, or Vue as framework or libraries.
- Runs as a single-page web application.
- Does not depend on any external web services besides the provided API.
- Responsive layout for tablet and desktop devices – does not need to scale for mobile.
- Uses only the endpoints documented here: <http://cs-mock-timeseries-api.azurewebsites.net/Help>
- Time series endpoint contains data points from 9/01/2016 00:00 UTC through 10/15/2017 00:00 UTC

### FUNCTIONALITY

- Front page that lists available resources (tags) in a human-readable format.
- Enabling filtering of tags by feature; features are identified in a string list for each tag.
- Allow the selection of a date range to view tag data (default to last 48 hours).
- Detailed page to visualize time-series data for identified date range for selected tag in a format appropriate for the data type:
  - Y axis of chart should be labeled with the tag's unit of measure
  - X axis of chart should be labeled with the time
  - Allow user to change time range on detailed page
- Please include 3-5 example automated tests.

### INTERFACE

We are leaving the design of the graphical user interface up to you. There are no requirements for external components to interface with this application.

### OUT OF SCOPE

- No authentication is required for the time series API.
- Users cannot modify, add, or delete any data.
- While a time-series endpoint would normally include paging functionality, no paging is implemented currently.

### DELIVERY

Please provide the full source code in a git repo either zipped up and delivered to [amanda@cleanspark.com](mailto:amanda@cleanspark.com) or hosted in a public server like github.